Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in this application.

Listing of Claims:

1. (Original) A speech synthesis device comprising:

speech database storing means for storing sample waveform data in a speech unit and a speech database created by way of associating the sample sound waveform data with their corresponding phonetic information;

speech waveform composing means for dividing phonetic information into speech units upon receiving the phonetic information of speech sound to be synthesized, for obtaining sample speech waveform data corresponding to the each phonetic information in a speech unit from the speech database, and for generating speech waveform data to be composed by means of concatenating the sample speech waveform data in speech units; and

analog converting means for converting the speech waveform data received from the speech waveform composing means into analog signals;

wherein the speech waveform composing means comprises pitch converting means for converting pitch by means of processing a segment of a waveform in which the waveform is converging on a minus peak during a periodical unit of speech waveform data.

2. (Amended) A computer-readable storing medium storing a program for executing pitch conversion using a computer having speech database storing means for storing sample waveform data in a speech unit and a speech database created by way of associating the sample

sound waveform data with their corresponding phonetic information, the program comprising the ~~step~~ steps of:

dividing phonetic information into speech units upon receiving the phonetic information of speech sound to be synthesized,

obtaining sample speech waveform data corresponding to the each phonetic information in a speech unit from the speech database,

converting pitch by means of processing a segment of a waveform in which the waveform is converging on a minus peak during a periodical unit of speech waveform data, ~~upon receiving the speech waveform data requiring pitch conversion~~ and

generating speech waveform data to be composed by means of concatenating the sample speech waveform data in speech units.

3. (Original) A speech synthesis device comprising:

speech database storing means for storing a speech database having several sample speech waveform data with various pitch lengths for each speech unit and phonetic information associated with the sample waveform data;

speech waveform composing means for dividing phonetic information into speech units upon receiving phonetic information of speech sound to be synthesized, for obtaining a desirable sample speech waveform data from among the sample speech waveform data corresponding to the divided phonetic information in a speech unit in the speech database, and for generating

speech waveform data to be composed by means of concatenating the obtained sample speech waveform data in speech units; and

analog converting means for converting the speech waveform data received from the speech waveform composing means into analog signals;

wherein the speech database is constructed of several sample speech waveform data with various pitch lengths prepared by modifying a contour of a waveform in a segment in which the waveform is converging on the minus peak during a periodical unit of speech waveform data.

4. (Original) A computer-readable storing medium storing a program for executing speech synthesis by means of a computer using a speech database, the program comprising the steps of:

receiving phonetic information of speech sound to be synthesized and dividing phonetic information into speech units;

obtaining a desirable sample speech waveform data from among sample speech waveform data corresponding to the divided phonetic information in a speech unit in the speech database; and

generating speech waveform data to be composed by means of concatenating the obtained sample speech waveform data in speech units;

wherein the speech database is constructed of several sample speech waveform data with various pitch lengths prepared by modifying a contour of a waveform in a segment in which the waveform is converging on a minus peak during a periodical unit of speech waveform data.

5. (Canceled)

6. (Original) The speech synthesis device of claim 1, wherein, within the segment in which the waveform is converging on the minus peak, a largest processing value is provided at around a zero crossing point and a smaller value is provided at a point farther from the zero crossing point.

7. (Original) The speech synthesis device of claim 1, wherein pitch is one of shortened and lengthened by one of compressing and extending, respectively, the waveform along a time axis in the segment in which the waveform is converging on the minus peak.

8. (Original) The speech synthesis device of claim 1, wherein waveform processing at around zero crossing point is performed within the segment in which the waveform is converging on the minus peak.

9. (Original) The speech synthesis device of claim 1, wherein waveform processing at around zero crossing point is performed by one of inserting a substantial zero value segment to lengthen pitch and eliminating a substantial zero value segment to shorten pitch.

10. (Canceled)

11. (Amended) A method of pitch conversion for speech waveform, the method comprising the ~~step~~ steps of:

~~performing pitch conversion by processing waveform in a segment in which the waveform is converging on a minus peak during a periodical unit of speech waveforms~~

preparing speech database means for storing sample waveform data in a speech unit and a speech database created by way of associating the sample sound waveform data with their corresponding phonetic information,

dividing phonetic information into speech units upon receiving the phonetic information of speech sound to be synthesized,

obtaining sample speech waveform data corresponding to the each phonetic information in a speech unit from the speech database,

converting pitch by means of processing a segment of a waveform in which the waveform is converging on a minus peak during a periodical unit of speech waveform data, and

generating speech waveform data to be composed by means of concatenating the sample speech waveform data in speech units.

12-15. (Canceled).

16. (Original) The storing medium of claim 2, wherein, within the segment in which waveform is converging on the minus peak, a largest processing value is provided at around a zero crossing point and a smaller value is provided at a point farther from the zero crossing point.

17. (Amended) The storing medium of claim 2, wherein pitch is one of shortened and lengthened ~~and lengthened~~ by one of compressing and extending, respectively, the waveform along a time axis in the segment in which the waveform is converging on the minus peak.

18. (Original) The storing medium of claim 2, wherein waveform processing at around a zero crossing point is performed within the segment in which the waveform is converging on the minus peak.